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Finding of No Significant Impact for the Construction of a Forward Operating Base on Fort Hood, Texas

1.0 Name of the Action

This document is an Environmental Assessment for the Construction of a Forward Operating Base (FOB) on Fort Hood, Texas.

2.0 Description of the Proposed Action and Alternatives

The U.S. Army, Headquarters III Corps and Fort Hood propose to construct a FOB at the North Fort Hood cantonment area of Fort Hood. The new FOB will support training of Reserve Component units located at Fort Hood while mobilizing for Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Under the Proposed Action, Fort Hood will construct a perimeter fence around the existing infrastructure, an Entry Control Point (ECP), guard towers, a new Civilians on Battlefield (COB) Village, and supporting infrastructure.

Under the No Action Alternative, the FOB would not be constructed. Training would continue with existing infrastructure, but at a reduced scale that would diminish the effectiveness of the training and the efficiency of the warfighters. Fort Hood requires the proposed FOB to adequately train Soldiers in a similar environment to those areas to which they will deploy.

No alternative sites were considered for the FOB, because the North Fort Hood cantonment area is the area currently designated as the Reserve Component unit training area. The majority of the infrastructure to be used in association with the FOB (i.e. buildings, dining facilities, barracks, etc.) already exists within the footprint. Additionally, the training activities there will be very similar to those currently conducted on those facilities.

3.0 Summary of Environmental Effect of the Proposed Action

No adverse impacts are anticipated to occur to threatened and endangered species, fish and wildlife, noise, airspace use, groundwater, geology, soils, floodplains, cultural resources, socioeconomics, environmental justice, protection of children from health and safety risks, and utilities as a result of implementing the Proposed Action. The Proposed Action should not adversely affect the current surface water quality of Belton Lake. A general storm water construction permit is required if the area disturbed is greater than one acre.

Vegetation, air quality, land use, surface water, jurisdictional waters, water quality, hazardous and toxic substances, and solid waste are anticipated to be adversely

impacted as a result of the Proposed Action, but avoidance, minimization, and mitigation measures will be implemented to ensure the impacts are not significant.

4.0 Conclusion

On the basis of the findings of this Environmental Assessment (EA), the Proposed Action will not have a significant effect on the human environment. A Finding of No Significant Impact is warranted and an Environmental Impact Statement is not required.

_____ _____

RODERICK A CHISHOLM Date

Director of Public Works

Environmental Assessment for the Construction of a Forward Operating Base on Fort Hood, Texas

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1.0 INTRODUCTION

The Environmental Division, Directorate of Public Works (DPW) at Fort Hood, Texas, has prepared this Environmental Assessment (EA) to analyze potential environmental impacts from the construction of a FOB at the North Fort Hood cantonment area of the installation.

No alternative sites were considered for the FOB, because the North Fort Hood cantonment area is currently designated as the Reserve Component unit training area. The majority of the infrastructure to be used in association with the FOB (i.e. buildings, dining facilities, barracks, etc.) already exists within the footprint. Additionally, the training activities there will be very similar to those currently conducted on those facilities.

1.1 PROPOSED ACTION OVERVIEW

The U.S. Army, Headquarters III Corps and Fort Hood propose to construct a FOB at the North Fort Hood cantonment area of Fort Hood.

1.2 PURPOSE AND NEED

The new FOB will support training of Reserve Component units located at Fort Hood while mobilizing for Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Under the Proposed Action, Fort Hood will construct a perimeter fence, an Entry Control Point (ECP), guard towers, a Civilians on the Battlefield (COB) Village, and supporting infrastructure.

Because Fort Hood's landscape is drastically different than Middle Eastern countries to which Soldiers are currently being deployed, it is essential to construct facilities in order to promote realistic training. The construction of a new FOB is critical for the safety and efficacy of our lethal warfighters.

1.3 AGENCY AND PUBLIC PARTICIPATION

III Corps and Fort Hood invites public participation in the NEPA process. All agencies, organizations, and members of the public having a potential interest in the Proposed Action are encouraged to participate in the decision-making process.

Therefore, the public is invited to review the EA and provide comments to the Fort Hood Environmental Division. The public comment period lasts for 30 days beginning the date that the notice of availability is printed in the *Killeen Daily Herald*. This EA and draft FNSI are available for review at the Killeen Public Library located at 205 E. Church St., Killeen, TX 78544 and through the Environmental Division, Directorate of Public Works, Fort Hood, Texas. The

documents will also be available online through the Fort Hood Directorate of Public Works website at http://www.dpw.hood.army.mil/.

2.0 **DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

2.1 PROPOSED ACTION

The U.S. Army, Headquarters III Corps and Fort Hood, proposes to construct a FOB at the North Fort Hood cantonment area of Fort Hood. The new FOB will support training of Reserve Component units located at Fort Hood while mobilizing for OIF and OEF. Under the Proposed Action, Fort Hood will construct a perimeter fence, an ECP, guard towers, a new COB Village, and supporting infrastructure.

Reserve Component troops currently mobilizing at North Fort Hood would be utilized to construct the FOB. This would allow Soldiers to learn how to effectively build a FOB in Theater, while saving the government additional construction costs.

A perimeter fence made from triple strand concertina wire would be constructed around the entire FOB area and guard towers would be strategically placed around the perimeter of the FOB to increase realistic force protection measures being used in OIF and OEF.

An ECP would be constructed as an entry point to the new FOB. The ECP would consist of a civilian entrance lane, a vehicle and personnel search area, and a military vehicle entrance and exit lane.

A COB village would be constructed near the existing COB village, just east of the proposed FOB area. The COB village would include buildings and infrastructure representative of Middle Eastern villages. Realistic training would occur in the COB village, including the use of actors to enhance the training.

2.2 ALTERNATIVES TO THE PROPOSED ACTION

2.2.1 No Action Alternative

Under the No Action Alternative, the FOB and associated infrastructure would not be constructed. Current activities at the North Fort Hood cantonment area would continue, and troops would continue to use North Fort Hood as a deployment center for Reserve Component troops. However, the infrastructure would not be built, and preparation for deployment would suffer due to lack of realistic training.

2.2.2 Alternatives Considered But Eliminated From Further Study

No alternative sites were considered for the FOB, because the North Fort Hood cantonment area is the area currently designated as the Reserve Component

unit training area. Additionally, the planned training activities will be very similar to those currently conducted on those facilities.

3.0 **AFFECTED ENVIRONMENT**

This EA evaluates the potential environmental impacts of the Proposed Action. It does not evaluate environmental parameters unaffected by implementation of the Proposed Action. Further, the affected environment is analyzed according to the current conditions observed at the project site under the Proposed Action. Therefore, the environment would remain the same if the No Action Alternative is selected.

3.1 BIOLOGICAL RESOURCES

3.1.1 Threatened and Endangered Species

All federal agencies are required to implement protection programs for designated species, and to further the purposes of the Endangered Species Act (ESA) [16 U.S.C. 1532 et. seq.] of 1973, as amended. In accordance with Army Regulation (AR) 200-1, Fort Hood has prepared an Endangered Species Management Plan (ESMP) [Fort Hood 2006-2010] which provides comprehensive guidelines for maintaining and enhancing populations and habitats of federally listed and candidate species on Fort Hood while maintaining mission readiness consistent with Army and Federal environmental regulations. A list of threatened, endangered, or other species of concern at Fort Hood is provided in Table 3.1 below.

Table 3.1
Protected, Candidate, and Species of Concern and Their Occurrence on Fort Hood

Common Name	Scientific Name	Federal Status	Status on Fort Hood 1*
FEDERALLY LISTED SPECIES			
Whooping crane	*Grus americana*	E	B
Bald eagle	*Haliaeetus leucocephalus*	T	A
Black-capped vireo	*Vireo atricapilla*	E	A
Golden-cheeked warbler	*Dendroica chrysoparia*	E	A
CANDIDATE SPECIES			
Salado Springs Salamander	*Eurycea chisholmensis*	C	C
Smalleye shiner	*Notropis buccula*	C	C
SPECIES OF CONCERN			
Texabama croton	*Croton alabamensis* var. *texensis*	N/A	A
Salamander (new species)	Under taxonomic review	N/A	A
Cave-associated species	Multiple species	N/A	A
Texas horned lizard	*Phrynosoma cornutum*	N/A	A
Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL	C

Legend: Federal Status: **E** = Endangered, **T** = Threatened, **C** = Candidate, **N/A** = Not Applicable, **DL** = Delisted
[1] Status refers to population status on Fort Hood according to these definitions:
A = Population established on Fort Hood. Recent information documents an established breeding population (even if small) or regular occurrence, on the installation. This includes those species for which research and management is ongoing and several endemic cave invertebrates.
B = Recently recorded on Fort Hood, but there is no evidence of an established population. This includes species considered to be transient, accidental, or migratory (e.g. some migrating birds may use the installation as a stopover site during migration to and from their wintering grounds). For some species in this category, further inventory may reveal breeding populations.
C = Not known to occur on or near Fort Hood, but there is some possibility of occurrence
* Updated from the ESMP (2006)

No threatened and endangered species habitat exists in the North Fort Hood cantonment area. The nearest threatened and endangered species habitat to the North Fort Hood cantonment area is west of the proposed construction area, inside the live fire area of Fort Hood. Threatened and endangered species habitat would not be affected by construction activities or training activities at the FOB. Therefore, threatened and endangered species have been eliminated from further study in this EA.

3.1.2 Vegetation

The combination of soils, topography, climate, and human activities has produced a diverse mix of vegetation communities or habitats within the installation boundary. Fort Hood is in the southernmost extension of the Cross Timbers and Prairies region and the northeastern reaches of the Edwards Plateau ecological region.

Woodlands in the area are closely representative of Edwards Plateau vegetative associations. Three types of forest and shrub communities are found on Fort Hood, including coniferous, deciduous, and mixed forests and shrub communities. The coniferous woodlands on the installation are dominated by Ashe juniper (*Juniperus ashei*). Deciduous forests and shrubs are generally found in lowlands and protected slopes and are relatively uncommon on the installation.

The grasslands, which comprised much of the area historically, are representative primarily of the mid-grass associations of the Cross Timbers and Prairies area, with inclusions of the tall-grass associations of the Blackland Prairie. Frequent range fires throughout the grasslands confine the woody vegetation to the riparian areas and the rocky slopes and hills. As a result of human activities, including cattle grazing, reduction and suppression of fires, and training activities, the current vegetation structure and mix of species differ from those expected for these vegetation communities (NRCS, 1998).

The North Fort Hood cantonment area is primarily comprised of a mixture of both native grasses and Bermuda grass, with a sparse population of native trees. Fort Hood's Installation Design Guide (IDG) requires that native trees lost during new construction be replaced at a ten to one ratio. The Proposed Action would be required to comply with the IDG. Juniper, or cedar, trees are not a protected species on Fort Hood.

3.1.3 Fish and Wildlife

The Proposed Action lies within, and adjacent to, a cantonment area, which is a primarily developed area. Few occurrences of wildlife are observed in the cantonment area. Further, no large water bodies capable of supporting aquatic life exist within the project area. Therefore, it is anticipated that no wildlife or fish

habitat will be disturbed by the Proposed Action, and therefore have been eliminated from further study in this EA.

3.2 AIR QUALITY

Fort Hood is located in Bell and Coryell Counties, which are within the Austin-Waco Intrastate Air Quality Control Region (AQCR) (40 CFR 81.175). Ambient air quality for the Austin-Waco Intrastate AQCR is classified as an unclassifiable/attainment area for all criteria pollutants. Unclassifiable areas are those areas that have not had ambient air monitoring and are assumed to be in attainment with the National Ambient Air Quality Standard (NAAQS).

Fort Hood, considered a major source for criteria pollutants because of its calculated potential to emit certain criteria pollutants including CO, NO_x, SO_2, VOC, and PM_{10}, is under the jurisdiction of USEPA Region VI and the Texas Commission on Environmental Quality (TCEQ). The installation is also currently designated as a major source of hazardous air pollutants; therefore, existing air emission sources are subject to Maximum Achievable Control Technology standards. The TCEQ approved Fort Hood's Title V Federal Operating Permit on October 29, 2001, and currently conducts annual compliance inspections at Fort Hood. Based on this audit mechanism, the installation has implemented the required programs to maintain compliance with Federal and state air regulations.

3.3 NOISE

3.3.1 Natural Noise Environment

The Noise Control Act of 1972(Public Law 92-574) directs federal agencies to comply with applicable federal, state, interstate, and local noise control regulations. Sound quality criteria disseminated by the Environmental Protection Agency (EPA), the U.S. Department of Housing and Urban Development (HUD), and the Department of Defense (DOD) have identified noise levels to protect public health and welfare with an adequate margin of safety. These levels are considered acceptable guidelines for assessing noise conditions in an environmental setting. Noise levels below 65 decibels (dB) are considered normally acceptable in suitable living environments. For the purposes of this EA, the natural noise environment consists of all non-military noise sources, such as, but not limited to, construction activities.

Responses to noise vary, depending on the type and characteristics of the noise, the expected level of noise, the distance between the noise source and the receptor, the receptor's sensitivity, and the time of day. Table 3.2 lists the sound levels of some familiar sources:

Table 3.2	
Sound Levels of Various Sources	
Source	**Sound Level (dB)**
Near jet plane at takeoff	140
Gun muzzle blast	140
Threshold of pain	120
Loud music	115
Car horn	115
Thunder	110
Chainsaw	100
Lawn mower at 50 feet	90
Jack hammer	88
Dozer	85
Backhoe	80
Alarm clock	75
Normal conversation	60
Light traffic	50
Refrigerator	40
Rustle of leaves	20
Normal breathing	10

One significant response to noise is annoyance. The annoyance may be personal or experienced as a group. The five factors identified as being indicators for estimating community complaint reaction to noise are type of noise, amount of repetition, type of neighborhood, time of day, and amount of previous exposure. For the Army, high sound levels are both a part of the job of operating weapons systems and a necessary training condition because soldiers must learn to function in an environment similar to what they will encounter on the battlefield.

No construction activities within the FOB would exceed acceptable noise limits. Further, no noise sensitive areas exist near the project area. Although barracks exist within the FOB, Soldiers living in those barracks would be in the process of training for deployment. Because the Proposed Action creates a realistic training environment, and no non-military groups are located near the project area, the natural noise environment has been eliminated from further study in this EA.

3.3.2 Military Noise Sources

Training activities are the primary sources of noise at Fort Hood. These activities include the use of fixed- and rotary-wing aircraft, heavy weapons firing, and other training activities. The Army has recognized its potential for noise impact on communities adjacent to its installations and has implemented the Installation Compatible Use Zone (ICUZ) program (DA PAM 200-1). As part of the ICUZ program, Fort Hood has mapped ICUZ noise zones that depict the relationship between noise levels and land use. The ICUZ noise zones are defined as follows:

- Zone I: An area around a noise source in which the day-night sound level is less than 62 dB CDNL for large caliber weapons, less than 87 PK15(met) for small arms or 65 dB ADNL for aircraft activity. This area is usually acceptable for all types of land use activities.

- Zone II: An area where the day-night sound level is between 62 and 70 dB CDNL for large caliber weapons; between 87 and 104 PK15(met) for small arms; or between 65 and 75 dB ADNL for aircraft activity. Exposure to noise within this area is considered significant, and use of land within Noise Zone II should normally be limited to activities such as industrial, manufacturing, transportation, and resource production. However, if the community determines that land in Noise Zone II areas must be used for residential purposes, then noise level reduction features of 25 to 30 decibels should be incorporated into the design and construction of the buildings.

- Zone III: An area around the source of the noise in which the level is greater than 70 decibels (dB), C-weighted day-night sound level (CDNL) for large caliber weapons, greater than 104 PK15(met) for small arms or greater than 75 dB, A-weighted day-night sound level (ADNL) for aircraft activity. The noise level within Noise Zone III is considered so severe that noise-sensitive land uses should not be considered therein.

The project area is listed as a Zone I area. Training that includes, but is not limited to, firing blanks, smoke grenades, and other realistic training may occur. These noises are not anticipated to exceed acceptable noise limits. Further, no noise sensitive areas exist near the project area. Although barracks exist within the FOB, Soldiers living in those barracks would be in the process of training for deployment. Because the Proposed Action creates a realistic training environment, and no non-military groups are located near the project area, the military noise environment has been eliminated from further study in this EA.

3.4 LAND AND AIRSPACE USE

Fort Hood encompasses approximately 214,778 acres. The installation is comprised of three cantonment areas, two instrumented airfields, and many maneuver and live-fire training areas. Although the project area lies within the North Fort Hood cantonment area of the installation, it is important to analyze the entire area in regards to land and airspace use in order to fully understand the scope of the affected area.

The cantonment areas are primarily for urban uses and are designated as the Main Cantonment Area, West Fort Hood, and North Fort Hood. The Main Cantonment Area and Hood Army Airfield (HAAF) are located on the southern edge of the training area and adjacent to Killeen, Texas. West Fort Hood is located south of U.S. Highway 190, near the City of Copperas Cove, Texas, and

includes Robert Gray Army Airfield (RGAAF). North Fort Hood, located east of Gatesville, Texas, is the primary site for Army Reserve and National Guard training, equipment service, and storage (USACE 1999).

While the cantonment areas contain administrative, maintenance, industrial, supply/storage, operations, housing, community support facilities, medical, outdoor recreation, and open space land uses, the maneuver/live-fire training areas provide the locations for combat training activities, which is Fort Hood's primary purpose. The airfields are located adjacent to the cantonment areas and house the fixed-wing and rotary-wing assets and support facilities (USACE 1999). Various other land uses on Fort Hood include Belton Lake Outdoor Recreation Area and miscellaneous uses such as roadways and easements.

Most of Fort Hood's land area is used for training and preparedness. Over 88 percent (191,157 acres) of the land is used for maneuver/ live-fire training involving combat, combat support, and combat service support elements integrated into formations to conduct multi-echelon, combined arms training to simulation battlefield conditions. Training includes infantry, mechanized infantry, armored units, artillery and air support with helicopters, fixed-wing tactical aircraft, high-speed interceptors, and large bombers (USACE 1999). The installation's training land is divided into two main areas: the Western Maneuver Area and the Eastern Training Area. There are 120 individual ranges on Fort Hood.

3.4.1 Surrounding Area

Both urban and rural areas surround Fort Hood. The City of Gatesville is located northwest of the North Fort Hood cantonment area of the installation. Urban land uses are typically residential, business, and industrial. The rural areas surrounding Fort Hood support agricultural land use practices such as farming and ranching. The proposed site lies at least one mile from the installation boundary. U.S. Highway 36 bisects the North Fort Hood cantonment area, and will be the northern border for the Proposed Action.

Fort Hood is currently writing an Army Compatible Use Buffer (ACUB) proposal in an attempt to secure funding to address urban encroachment adjacent to its boundary. The installation is proposing the establishment of a buffer extended up to six miles from the installation boundary. The purpose of the ACUB program is to ensure that compatible land use practices such as farming and ranching are maintained in rural areas surrounding the installation. The ACUB would provide an opportunity to avoid incompatible development on a voluntary and cooperative basis to relieve current and future restrictions on military operations. Participation in an ACUB program is strictly voluntary and from willing landowners.

3.4.2 Future Development in the Region

The areas to the north, south, and west of Fort Hood are undergoing rapid urban growth, thus reducing the amount of available agricultural lands. Development and improvement of regional transportation routes has accompanied the growth, especially along the I-35 and U.S.-190 corridors.

Encroachment towards the northern border of Fort Hood has affected the Army's ability to expand training efforts towards the installation's border. Although the City of Gatesville has begun to expand towards Fort Hood, there are currently no adverse impacts anticipated from the construction or utilization of the Proposed Action. Any combined impacts of future development in or near the project area will be discussed in the cumulative impacts section.

3.4.3 Airspace Use

HAAF is located southeast of the live-fire area. Training missions involving rotary-wing aircraft frequently begin and end at HAAF. RGAAF is located at West Fort Hood, over 20 miles from the project area. Although few rotary-wing aircraft depart for training in the live-fire area from RGAAF, all fixed-wing aircraft must depart from there. Fixed wing training in the live-fire area is currently minimal due to air space restrictions; however, it is anticipated to increase as Fort Hood attempts to increase airspace compatibility. Two small airfields exist northeast of the project area: Shorthorn Airfield and Longhorn Airfield. These airfields are used for training purposes during deployments of Reserve Component troops. The Proposed Action will not have an effect on the frequency of use for these airfields, and airspace use will not impact training in the FOB. Therefore, airspace use has been eliminated from further study in this EA.

3.5 WATER RESOURCES

3.5.1 Groundwater

The primary stratigraphic units that occur in the Fort Hood area are pre-Cretaceous rocks, the Travis Peak formation, the Glen Rose formation, the Paluxy formation, the Walnut formation, the Comanche Peak formation, and the Edwards Limestone formation. The Walnut formation, Comanche Peak formation, and Edwards Limestone formation occur at the surface of the area, while the Paluxy and Glen Rose formations are exposed along the channels of the Leon River, Cowhouse Creek and their tributaries (USACE 1999). Potentially sensitive groundwater areas of the Fort Hood region are the outcrop areas along Cowhouse Creek, Henson Creek, and the Leon River, as well as the karst, or cave, systems found throughout the installation. The aquifers recharged by these areas are relatively shallow, and could be affected by hazardous material spills and seepage. However, because none of these areas are located within the

North Fort Hood cantonment area, groundwater is not anticipated to be affected. Therefore, groundwater has been eliminated from further study in this EA.

3.5.2 Surface Water

Fort Hood is located in the Brazos River Basin. Surface water consists of numerous small to moderate sized streams, which generally flow in a southeasterly direction. Fort Hood has approximately 192.13 linear miles of streams and over 200 impoundments within its boundaries. Water resources include approximately 500 acres of lakes and ponds. Approximately 50 percent of Fort Hood is in the Cowhouse Creek watershed, making Cowhouse Creek particularly sensitive to sedimentation impacts. Belton Lake is owned and operated by the U.S. Army Corps of Engineers (USACE) for flood control, water supply, and recreation.

In the project area, several water features are present. These drainages flow in a northeasterly direction and empty into the Leon River, which becomes the northern arm of Belton Lake.

3.5.3 Jurisdictional Waters

Section 404 of the Clean Water Act requires authorization from the U.S. Army Corps of Engineers to discharge dredged or fill material into waters of the United States. Waters of the United States are defined in 33 CFR 328.3(a) and include navigable waters and all of their associated tributaries as well as adjacent wetlands. Wetlands are further defined in 33 CFR 328.3 (b) and must meet the requirements of the 1987 Corps of Engineers Wetlands Delineation Manual in order for the USACE to have jurisdiction over them. For further definitions, refer to 33 CFR 328 and the 1987 Corps of Engineers Wetlands Delineation Manual**,** which can be found at http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf.

Waters of the U.S., including wetlands, have been identified in the North Fort Hood cantonment area. Figures 3.1a and 3.1b below depict the waters of the U.S. identified in the project area.

Figure 3.1a: North End of the North Fort Hood Cantonment Area

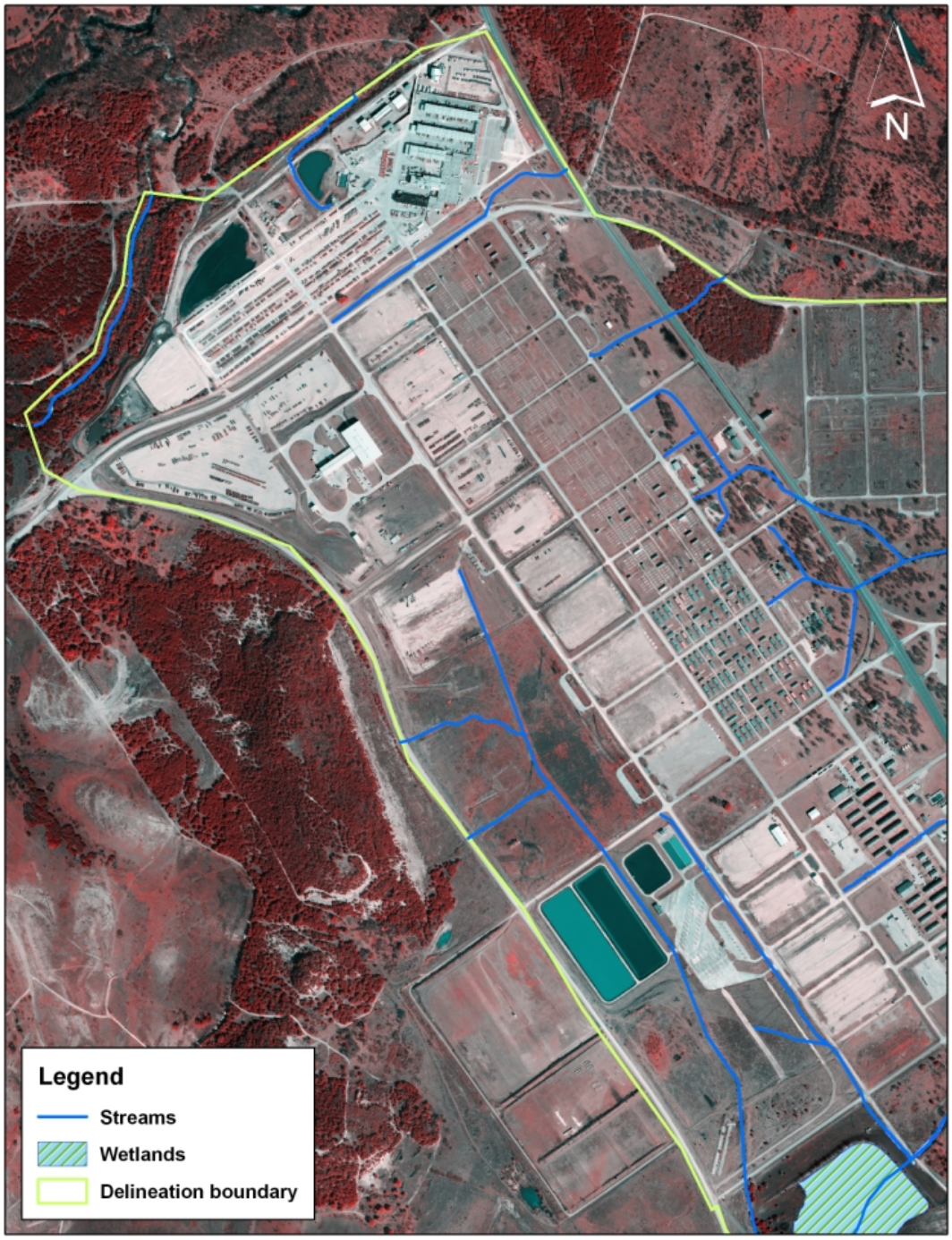
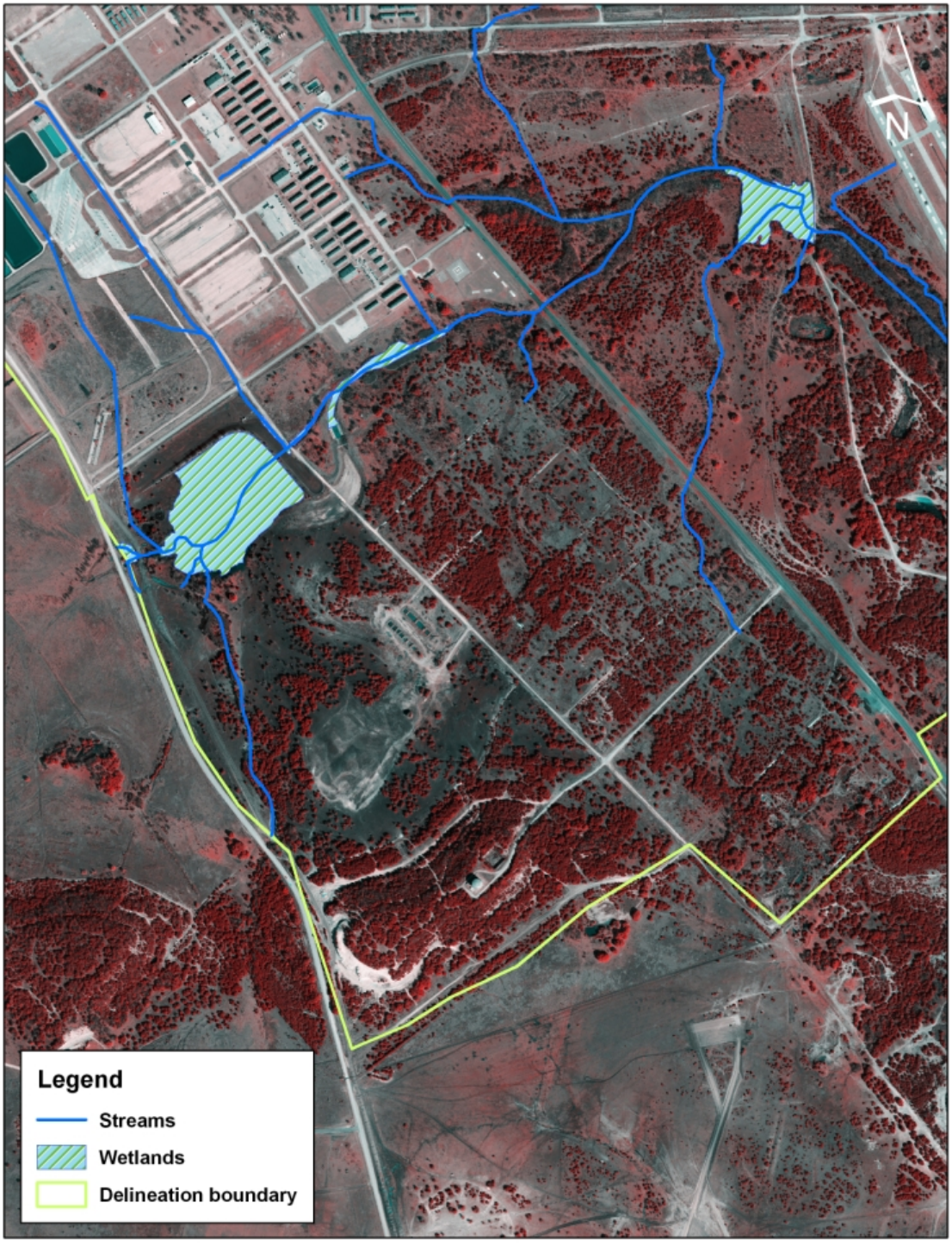


Figure 3.1b: South End of the North Fort Hood Cantonment Area

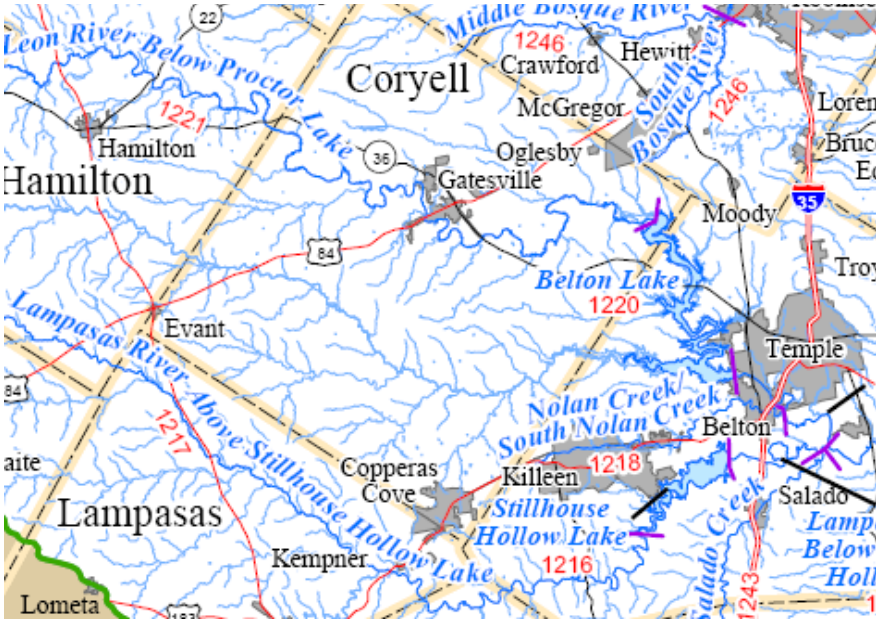


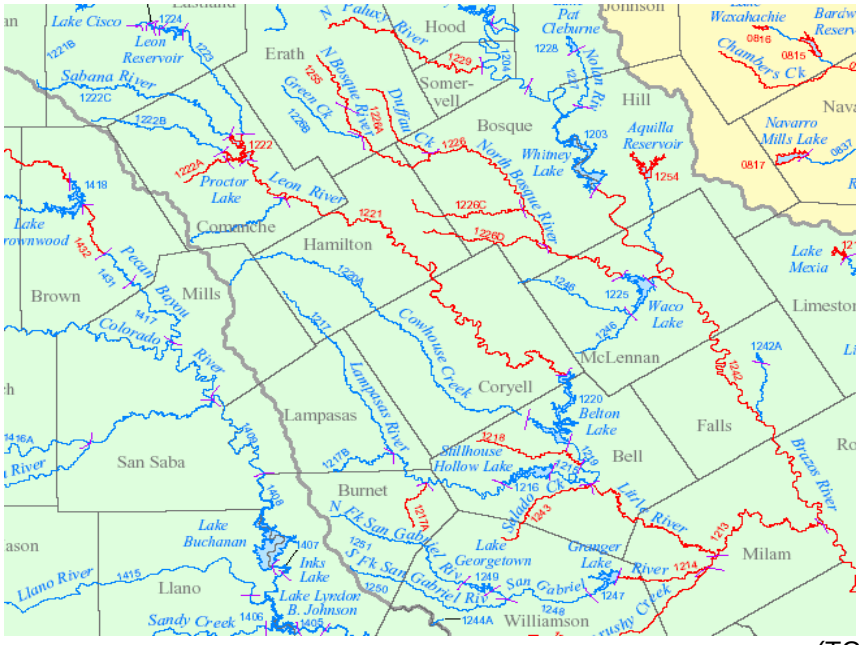
3.5.4 Water Quality

TCEQ has divided the Middle Brazos River basin into 16 classified segments. Figure 3.2 below depicts the four segments of concern on Fort Hood. The segment closest to the Proposed Action is segment 1221. TCEQ considers the segment of highest concern to be segment 1221, the Leon River below Proctor Lake. Segment 1220, Belton Lake, catches the majority of runoff from tributaries and creeks on Fort Hood. Some smaller tributaries on Fort Hood also run into segments 1217 and 1218, which include the Lampasas River above Stillhouse Hollow Lake and Nolan Creek/South Nolan Creek, respectively.

Segments 1221 and 1218 have both been listed on the TCEQ Section 303(d) list of impaired water bodies for bacterial concerns in both 2002 and 2004. The portions of segment 1221 that are listed on the 303(d) list occur north and west of Fort Hood in Comanche County (TCEQ 2004).

Figure 3.2





(TCEQ 2004)

The U.S. Army Center for Health, Promotion and Preventative Medicine (USA CHPPM) conducted a Geohydrologic Study in April 2001 on the range area of Fort Hood. Groundwater, surface water and sediment were analyzed for metal concentrations and perchlorate. CHPPM results indicated that activities conducted in the impact area, with respect to the tested analytes, do not adversely affect stream water quality or ecology (CHPPM 2001).

3.6 GEOLOGICAL RESOURCES

3.6.1 Geology

The strata underlying Fort Hood, with the exception of the recent alluvium and river terrace deposits, are consolidated sedimentary rocks of Cretaceous age and belong to the Comanche Series. The erosion of these Cretaceous rocks over the past 70 million years and the deposition of unconsolidated materials along the major streams have produced the present landscape of Fort Hood (USACE 1987). The major rock layers beneath Fort Hood are the Glen Rose formation, Paluxy Sand, Walnut Clay, Comanche Peak formation, Edwards Limestone-Kiamichi Clay complex, Denton Clay-Fort Worth Limestone, and Duck Creek Limestone complex. The major floodplains are filled with alluvium and river terrace deposits.

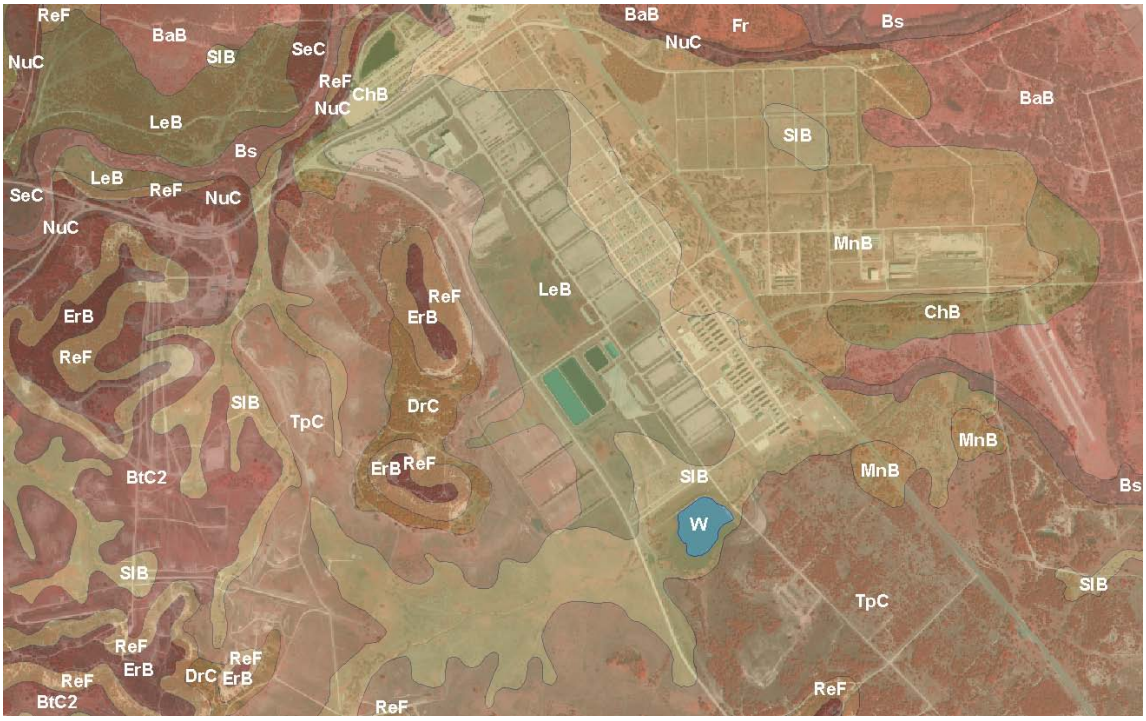
The Balcones Fault Zone passes immediately east of the installation, running north to southwest. The land to the north of this zone, including Fort Hood lands, has risen as much as 500 feet. Erosion of this land over time is what has created the irregular, steep sloping terrain on the installation (USACE 1987). The geology

of Fort Hood is not anticipated to be impacted as a result of the Proposed Action. Therefore, geology has been eliminated from further study in this EA.

3.6.2 Soils

Soil types within the proposed project area were determined using the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), and Bell County and Coryell County Soil Surveys (1977 and 1985, respectively). Figure 3.3 below is a map of soils located in the project area.

Figure 3.3: Soil Map of North Fort Hood



Primary soils in the area are Lewisville clay loam (LeB) and Slidell silty clay (SIB). Lewisville clay loam is described as deep, gently sloping soil on major stream terraces. The soil is well drained with moderate permeability and medium runoff. It is well suited for pasture-type use. Slidell silty clay is described as deep, gently sloping soil in valley fill areas along drainage ways. The soil is well drained, with very slow permeability and slow to medium runoff. It is well suited for pasture-type use. Topsey-Pidcoke (TpC) association and Real-Rock outcrop (ReF) complex are also present in small areas near the project area. Soils are not anticipated to be adversely impacted by the Proposed Action. Therefore, soils are eliminated from further study in this EA.

3.6.3 Floodplains

Floodplains do not constitute a resource themselves, but rather a hazard to any development that occur within them. Floodplains exist along most creeks on Fort Hood. The project site is located outside any floodplain area. Therefore, floodplains are eliminated from further study in this EA.

3.7 CULTURAL RESOURCES

Cultural resources are defined by the National Historic Preservation Act (NHPA) as prehistoric and historic sites, structures, districts, or any other physical evidence of human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or any other reason. Depending on the condition and historic use, such resources may provide insight into living conditions in previous civilizations and may retain cultural and religious significance to modern groups.

The Cultural Resources Management Plan for Fort Hood documents that 98.6 percent of the Training and Cantonment Areas and 71.1 percent of the live fire area have been surveyed for archeological resources.

Although historic structures exist in the North Fort Hood cantonment area, none will be disturbed as a result of the Proposed Action. No other types of cultural resources are anticipated to be present within the project area. If any historic or cultural resources are uncovered during construction activities, construction would stop until further research may be completed. Therefore, cultural resources have been eliminated from further study in this EA.

3.8 HAZARDOUS AND TOXIC SUBSTANCES

Specific environmental statutes and regulations govern hazardous material and hazardous waste management activities at Fort Hood. For the purpose of this analysis, the terms *hazardous waste*, *hazardous materials*, and *toxic substances* include those substances defined as hazardous by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), or the Toxic Substances Control Act (TSCA). In general, they include substances that, because of their quantity, concentration, or physical, chemical, or toxic characteristics, might present substantial danger to public health or welfare of the environment if released.

Maintenance support and specialized flight support operations currently use large quantities of hazardous materials. These materials primarily consist of aviation fuel, ground vehicle fuel, lubricants, hydraulic fluids, antifreeze, degreasers and solvents, chemical batteries, cleaning materials and paint-related materials.

These hazardous materials are used and temporarily stored at locations throughout the Fort Hood cantonment areas, airfields, training areas, and live fire area.

Hazardous materials are managed in accordance with AR 200-1, *Environmenta*l *Impacts of Army Actions* (February 1997) Section 4 for the purpose of minimizing hazards to public health and damage to the environment. Hazardous materials are also managed to minimize the generation of hazardous waste. Fort Hood has implemented a Hazardous Material Management Program (HMMP) that centrally manages all hazardous materials on the post. The concept of centralized control is to manage the materials "from cradle to grave" and reduce hazardous waste generation.

Fort Hood's Spill Prevention, Control, and Countermeasure (SPCC) Plan and Installation Spill Contingency Plan address the prevention of unintentional pollutant discharges from the bulk storage and handling of petroleum products and other hazardous materials. The plans detail the specific storage locations, the amount of material at potential spill sites throughout Fort Hood, and spill countermeasures.

All hazardous materials used on-post must be accompanied by a material safety data sheet (MSDS) that details the hazards associated with each specific substance. Contractors working on-post must comply with the Fort Hood HMMP and obtain approval for all hazardous materials brought on post. Material containing polychlorinated biphenyls (PCBs), asbestos, and lead may not be introduced on military installations.

3.9 SOLID WASTE MANAGEMENT

The Fort Hood landfill is located in Bell and Coryell Counties, approximately 18 miles south of the North Fort Hood cantonment area. The landfill is a government-owned, contractor-operated Class I municipal solid waste permitted facility, operating under Permit Number 1866. Solid waste collection is accomplished under contract with a private refuse contractor. Fort Hood is actively engaged in technology advancements for solid waste processing to continue to exceed all DOD goals.

3.10 SOCIOECONOMICS

The socioeconomic Region of Influence (ROI) of the subject property encompasses a portion of Fort Hood in Coryell County, Texas. The total population of Coryell County was estimated to be 58,930 in 2005. The racial mix is provided in Figure 3.4 below:

Figure 3.4: Population Statistics for Coryell County[1] (U.S. Census Bureau, 2005).

Total population	58,930	
Male	28,380	49.0
Female	30,550	51.8
Median age (years)	29.4	(X)
Under 5 years	5,113	8.7
18 years and over	39,556	67.1
65 years and over	4,436	7.5
One race	56,433	95.8
White	42,058	71.4
Black or African American	9,295	15.8
American Indian and Alaska Native	201	0.3
Asian	1,419	2.4
Native Hawaiian and Other Pacific Islander	0	0
Some other race	3,460	5.9
Two or more races	2,497	4.2
Hispanic or Latino (of any race)	7,843	13.3

[1] http://recenter.tamu.edu/data/popm00/pcbsa28660.html
[2] Ibid.
3 U.S, Census Bureau (hyperlink below)
http://factfinder.census.gov/servlet/SAFFFacts?_event=Search&geo_id=&_geoContext=&_street=&_county=Bell+County&_cityTown=Bell+County&_state=04000US48&_zip=&_lang=en&_sse=on&pctxt=fph&pgsl=010

The 2002 unemployment rate was 2.6 percent, which is slightly, lower than the state unemployment rate of 3.8 percent. Approximately 7.8 percent of the total population lives in poverty. This is slightly less than the estimated 15.4 percent of the state population that lives in poverty (USCB 2004).

In 2000, there were 21,776 housing units in Coryell County. Approximately 14,069 of the housing units are one-unit, detached structures with the rest existing as multi-unit housing, mobile homes, or boat, recreational vehicles, or vans (USCB 2004).

Currently, twelve family housing villages are located on the installation and are managed by Fort Hood Family Housing. These villages include community facilities such as schools, community centers, swimming pools, and child development centers. In addition, the villages provide community amenities such as community halls, sports facilities, parks, and playgrounds. There are retail

facilities located in several of the villages as well as two post exchanges and two commissaries. These large retail facilities can be found on Clear Creek Road.

Because the North Fort Hood cantonment area will be used as a FOB for training and deployment purposes, and construction will not be completed by an outside contractor, socioeconomics is not anticipated to be impacted. Therefore, socioeconomics has been eliminated from further study in this EA.

3.10.1 Environmental Justice

Executive Order (E.O) 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," dated February 11, 1994, requires all Federal agencies to identify and address disproportionately high and adverse effects of its programs, policies and activities on minority and low-income populations. Because the Proposed Action does not include factors affecting minority and low income populations, and construction will be performed by Reserve Components as training, Environmental Justice has been eliminated from further study in this EA.

3.10.2 Protection of Children from Health and Safety Risks

E.O. 13045 "Protection of Children from Environmental Health Risks" dated April 21, 1997 requires Federal agencies to identify and address the potential to generate disproportionately high environmental health and safety risks to children. This E.O. was prompted by the recognition that children, still undergoing physiological growth and development are more sensitive to adverse environmental health and safety risks than adults are. Because there are no housing areas, daycares, schools, or other facilities in the North Fort Hood cantonment area where children would live, stay, or play, Protection of Children has been eliminated from further study in this EA.

3.11 UTILITIES

3.11.1 Water Supply

Most of the potable water used on Fort Hood is obtained from the Bell County Water Control & Improvement District #1 (BCWCID#1), which treats surface water from Belton Lake. This purchased water is distributed throughout the main cantonment areas of South and West Fort Hood, as well as to the Belton Lake Outdoor Recreation Area. At North Fort Hood, potable water is purchased from the City of Gatesville. It is anticipated that the Proposed Action will continue to use this service for any new facilities. The water supply at the North Fort Hood cantonment area is not anticipated to be adversely impacted by the Proposed Action. Therefore, the water supply has been eliminated from further study in this EA.

3.11.2 Sanitary Sewer

The sewage generated at South and West Fort Hood, excluding Liberty Village, is discharged to Wastewater Treatment Plant #1 operated by the BCWCID. Half of the current total treatment capacity of this facility (7.5 out of 15 million gallons per day) is reserved for Fort Hood. Liberty Village has its own package wastewater treatment plant that is contractor owned and operated. The Belton Lake Outdoor Recreation Area (BLORA) has a separate sanitary sewer collection system that discharges to a permitted wastewater treatment facility operated by the Fort Hood Directorate of Public Works. Another sanitary sewer collection system and permitted treatment facility is located at North Fort Hood, but discussions are in progress for a possible connection from the installation's collection system to a treatment plant operated by the City of Gatesville. If that happens in the future, Fort Hood's treatment plant at North Fort Hood would be closed and all sewage would be discharged to and treated by the Gatesville facility. The sanitary sewer at North Fort Hood is not anticipated to be adversely impacted by the Proposed Action. Therefore, sanitary sewer has been eliminated from further study in this EA.

3.11.3 Electric Power

Constellation New Energy currently provides electricity to the Fort Hood area through two 138,000-volt transmission lines (USACE 1999). However, the electric power provider could change in 2007 due to contract expiration. This change would be seamless to Fort Hood, and would not impact electric power service. It is anticipated that the Proposed Action will continue to use this service for any new facilities. The electric power supply at the North Fort Hood cantonment area is not anticipated to be adversely impacted by the Proposed Action. Therefore, the electric power supply has been eliminated from further study in this EA.

3.11.4 Natural Gas

Atmos Energy provides a guaranteed annual delivery of 1,300,000 thousand cubic feet (MCF). Further, a guaranteed maximum daily quantity of 550 MMBtu (1000 cubic feet, British thermal units) is supplied to North Fort Hood. It is anticipated that the Proposed Action will continue to use this service for any new facilities. The natural gas supply at the North Fort Hood cantonment area is not anticipated to be adversely impacted by the Proposed Action. Therefore, the natural gas supply has been eliminated from further study in this EA.

4.0 **ENVIRONMENTAL IMPACTS AND CUMULATIVE ACTIONS**

In this section, only resources having the potential to be adversely impacted by the Proposed Action will be analyzed. Those resources eliminated from further study in this EA include threatened and endangered species, fish and wildlife, the natural noise environment, the military noise environment, airspace use, geology, soils, floodplains, cultural resources, socioeconomics, and utilities. Those resources further discussed in section 4.0 include vegetation, air quality, land use, groundwater, surface water, jurisdictional waters, water quality, hazardous and toxic substances, and solid waste management.

Because the No Action Alternative is not anticipated to change or affect the existing environmental conditions, only the Proposed Action is analyzed in this section.

4.1 BIOLOGICAL RESOURCES

4.1.1 Vegetation

Implementation of the Proposed Action would result in both temporary and permanent loss of vegetation. The Proposed Action is anticipated to impact approximately 650 acres of land. However, the vegetation would only be permanently removed in the footprints of new buildings and infrastructure. The majority of vegetation, however, is left undisturbed to aid in overall stabilization of the area. Once construction is complete, all areas that were disturbed would be reseeded with only native grass species.

Increased training activities may have long term, minor adverse effects to grasslands within the project area. However, the implementation of management measures consistent with the Fort Hood INRMP will minimize further degradation of the grasslands. As a result, vegetation is not anticipated to be adversely impacted by implementation of the Proposed Action.

4.2 AIR QUALITY

Construction activities and increased training are anticipated to affect air quality on Fort Hood. Heavy construction equipment and trucks would emit minor amounts of NO_X, PM-10, CO, SO_X, and VOCs. Construction is anticipated to take no longer than one year to complete. Table 4.2 indicates the total annual air emissions from construction activities.

Table 4.1	
Total Annual Air Emissions From Construction Activities	
Pollutant	Total Emissions (tons/year)
Carbon monoxide (CO)	31.23
Nitrogen oxides (NO_X)	16.89
Particulate Matter (PM-10)	1.35
Sulfur oxides (SO_X)	1.02
Volatile organic compounds (VOCs)	4.47
Source: AECATS II, 2004.	

Although the construction activities would produce dust and particulate matter, these actions pose no significant impact on air quality. Fugitive dust emissions will be easily controlled or minimized by using standard construction practices such as 1) periodically wetting the area of construction, 2) covering open equipment used to convey materials likely to create air pollution, and 3) promptly removing spilled or tracked dirt from roads.

Additional training activities are anticipated to result in long term, minor adverse effects. This increase in emissions is already accounted for in the Fort Hood Air Program's emissions inventory each year. Therefore, no long term, adverse impacts to air quality are anticipated as a result of implementing the Proposed Action.

4.3 LAND USE

Activities from the Proposed Action would result in increased training activities. However, these activities would take place on land designated for the purpose of military training and deployment activities. Construction of the FOB would be used as a training activity by Reserve Component units preparing for deployment in support of OEF and OIF.

The North Fort Hood Master Plan has sited several projects in the vicinity of the proposed FOB area. The cumulative impacts of those construction projects, paired with the impacts resulting from construction of the FOB, will be considered in the Cumulative Impacts section (section 4.7) of this EA.

4.4 WATER RESOURCES

4.4.1 Surface Water

Soil erosion on the installation has resulted in decreased water quality and increased sedimentation in portions of Belton Lake as well as smaller water bodies and tributaries on the installation (USACE 1999). The Blackland Research and Extension Center Water Science Laboratory in Temple, Texas, monitors sediment and other water quality parameters at fourteen locations across Fort Hood. Soil erosion management actions carried out in accordance with the Fort Hood Integrated Natural Resources Management Plan (INRMP) would help to control the sedimentation loads associated with the Proposed Action.

Storm water flows are important to the management of surface water. The flows can introduce sediments and other contaminants into lakes, rivers, and streams that may be overwhelmed by high proportions of impervious surfaces associated with buildings, roads, and parking lots. Hardening of surfaces through construction of buildings and parking areas will slightly increase storm flows. Adherence to proper storm water management engineering practices, applicable regulations, codes, and permit requirements, and low-impact development techniques would reduce storm water runoff-related impacts.

The Texas Commission on Environmental Quality (TCEQ) issues permits for Water Quality Certification for construction activities, as required by Section 401 of the Clean Water Act (CWA). The U.S. Army Corps of Engineers (USACE) regulates the placement of dredge or fill materials into the waters of the U.S. under Section 404 of the CWA. Any construction plans associated with the Proposed Action would be assessed to determine what actions would be necessary (if any) to obtain appropriate CWA permits.

Construction associated with the Proposed Action would require the development of a Storm Water Pollution Prevention Plan to meet requirements of the Texas Pollutant Discharge Elimination System (TPDES) program since more than one acre of land would be disturbed. Erosion and sediment controls would be required and would be in place during construction to reduce and control erosion impacts to areas outside of the construction site. The use of best management practices (BMPs) such as silt fencing and sediment traps, and the stabilization of disturbed soils, would help to maintain water runoff quality at levels comparable to existing conditions, and would limit potential environmental impacts from construction activities. Therefore, no significant impacts to surface water are anticipated.

4.4.2 Jurisdictional Waters

Waters of the U.S., including wetlands, are present in the North Fort Hood cantonment area of Fort Hood. Impacts to jurisdictional waters are divided into two actions, consisting of the filling of waters and the clearing and thinning of vegetation. Filling of streams and wetlands creates a greater impact to jurisdictional waters, compared with clearing and thinning, since the results are permanent. As a result, measures will be taken to reduce the amount of waters of the U.S. filled.

Currently, there is no installation-wide delineation of the waters of the U.S. and wetlands on Fort Hood. However, a delineation of priority areas slated for construction has been funded, and the North Fort Hood cantonment area has been preliminarily delineated. This delineation of the North Fort Hood cantonment area has not yet been approved by the USACE Fort Worth District Regulatory (USACE-FWD Reg). The maps provided in section 3.5.3 (Figures 3.1a and 3.1b) should be used as a planning tool for avoidance and minimization efforts within the identified waters of the U.S. in the North Fort Hood cantonment area.

The Proposed Action is anticipated to fall under Nationwide Permit (NWP) 39. The general thresholds for this NWP are that the project may not cause the loss of more than ½ acre of waters of the U.S. (wetlands or streams) or more than 300 feet of an intermittent or perennial stream bed. However, the loss of more than 300 feet of an intermittent stream may be authorized by the District Engineer, which must be requested in writing. Additionally, Fort Hood must notify the USACE if the project will cause a loss of more than 1/10 acre of waters of the U.S., any open water (ponds, lakes), or any perennial stream. If the thresholds of NWP 39 are exceeded, an individual permit for the Proposed Action will be applied for through the USACE-FWD Reg. The notifications and permit application would include the project description, jurisdictional delineation, and proposed mitigation measures.

Section 404 of the CWA requires a sequential approach for unavoidable impacts to jurisdictional waters of the U.S. This includes avoidance, minimization, and/or compensatory mitigation. Fort Hood will minimize impacts to jurisdictional waters within the project boundaries and when required, obtain Section 404 permits from USACE and plan and conduct appropriate mitigation projects.

Although all impacts to waters of the U.S., including wetlands, are not yet fully determined, the effects are anticipated to be long term yet insignificant due to the avoidance and minimization methods that will be employed. Additionally, as necessary and required, compensatory mitigation projects will be implemented.

4.4.3 Water Quality

Segment 1221 of the Middle Brazos River basin flows near the North Fort Hood cantonment area of the installation. Although this segment is listed on the TCEQ Section 303(d) list of impaired water bodies for bacterial concerns, the portions of the segment that are listed on the 303(d) list occur north and west of the installation in Comanche County (TCEQ 2004).

Best management practices and storm water controls are anticipated to greatly reduce runoff that would impact water quality of the impacted segment. Therefore, no significant impacts to water quality are anticipated.

4.5 HAZARDOUS AND TOXIC SUBSTANCES

Long term, minor adverse impacts would be expected from the limited amounts of hazardous material used in the North Fort Hood cantonment area. These materials would be controlled, treated, and classified as described in Section 3.8.

The generation of any hazardous waste would be treated as described in Section 3.8, and any solvents used would be recycled and reused.

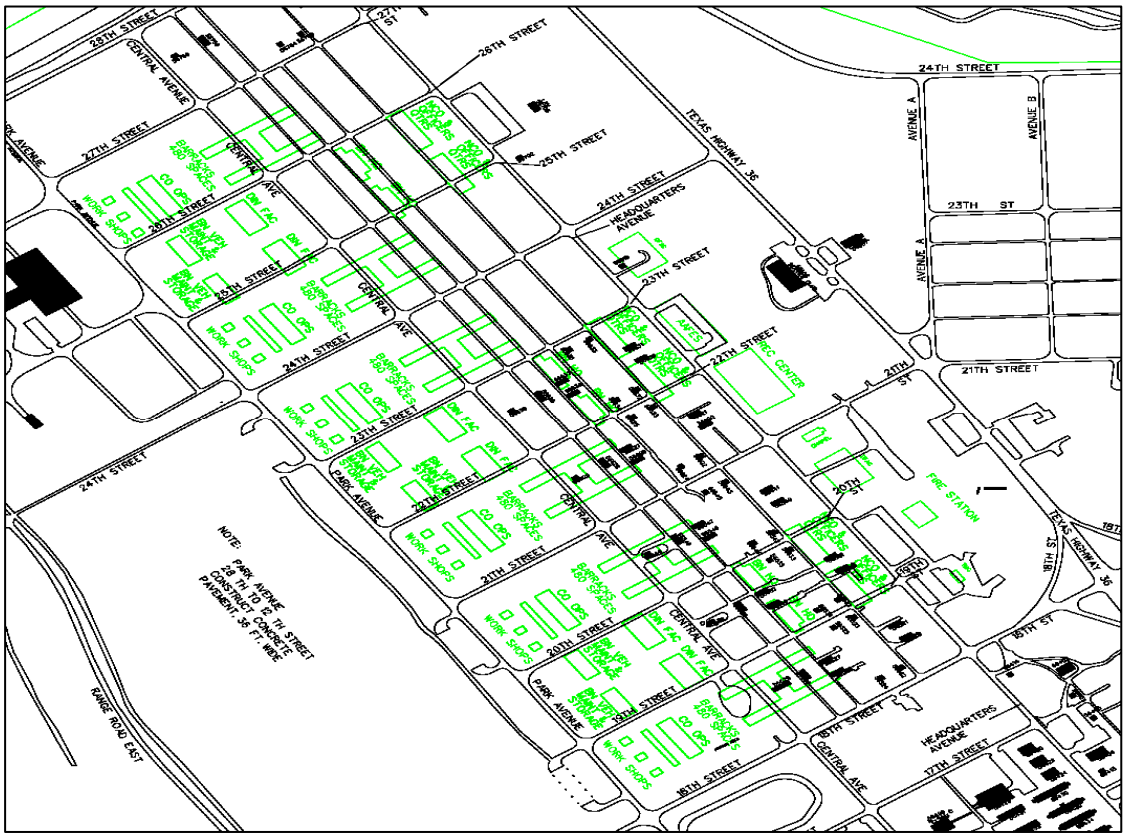
4.6 SOLID WASTE MANAGEMENT

Long term, insignificant impacts to the landfill would be expected as a result of implementing the Proposed Action. The life of the landfill and outstanding recycling program would easily accommodate any increase in solid waste generated by additional training at the North Fort Hood cantonment area.

4.7 CUMULATIVE IMPACTS

North Fort Hood is becoming a premier deployment facility for reserve component units. As such, the Real Property Planning Division has composed a North Fort Hood Master Plan to encompass probable projects to be constructed at North Fort Hood. Figure 4.1 below outlines the construction slated at North Fort Hood, as discussed in the North Fort Hood Master Plan. The black lines indicate permanent, existing infrastructure, and the light green lines indicate future construction.

Figure 4.1



The most current projects slated for construction at North Fort Hood include the North Fort Hood Fire Station, the North Fort Hood Physical Fitness Center, and an Army Air Force Exchange Service (AAFES) store. These projects planned to be constructed before FY 2010, and the North Fort Hood Fire Station should be constructed by December, 2007.

Although Figure 4.1 above sites the North Fort Hood Fire Station and the AAFES store on the north side of Headquarters Avenue, these buildings have been re-sited recently. The new location for these projects is the northeast corner of 18th Street and Central Avenue.

Other major projects include a chapel and four Operational Readiness Training Complexes (ORTCs). These projects are slated for construction after FY 10. A project to relocate an existing fuel station to North Fort Hood is planned, but the timeline is unknown.

For the purposes of this EA, the cumulative impacts section will analyze the combined impacts of past, present, and reasonably foreseeable future projects in the North Fort Hood Cantonment Area. These projects, as shown in Figure 4.1, are anticipated to impact vegetation, air quality, noise, land and airspace use,

groundwater, surface water, jurisdictional waters, water quality, cultural resources, hazardous and toxic substances, solid waste management, utilities and socioeconomics. Although cumulative impacts will be generally analyzed for significance in this EA, each project will be reviewed individually during the planning process and appropriate environmental documentation will be completed.

Vegetation is anticipated to be impacted due to construction activities. A direct loss of vegetation is anticipated in the footprint of each building. However, after each construction project is complete, the site will be re-vegetated and/or landscaped to reduce soil loss and runoff from the site. Landscaping is regulated in Fort Hood's Installation Design Guide (IDG), which contractors must abide by during construction. Use of the IDG, combined with best management practices (BMPs) on each construction site, is anticipated to reduce impacts to vegetation to a level of insignificance.

Air quality is anticipated to be impacted during the construction phase of each project. However, construction of each individual project slated in the North Fort Hood area will be spread out over several years and will not occur concurrently. Heavy construction equipment and trucks emit minor amounts of NO_X, PM-10, CO, SO_X, and VOCs. Additionally, construction activities are anticipated to produce dust and particulate matter. These fugitive dust emissions will be controlled or minimized by BMPs such as periodically wetting the area of construction, covering open equipment used to convey materials likely to create air pollution, and promptly removing spilled or tracked dirt from roads. By implementing these BMPs and minimizing the idle time of heavy equipment, the air quality is not anticipated to be significantly impacted as a result of the projects at North Fort Hood.

Noise is anticipated to increase during the construction phase of each project. However, construction of each individual project slated in the North Fort Hood area will be spread out over several years and will not occur concurrently. Noise is anticipated to be limited to daylight hours, and will not affect housing areas, schools, or other noise sensitive areas. Therefore, noise is not anticipated to be significantly impacted as a result of the projects at North Fort Hood.

Land and airspace use is anticipated to be impacted due to increased infrastructure and increased training capabilities at North Fort Hood. As infrastructure improves and troops are able to more easily deploy from North Fort Hood, airspace use may increase at the Longhorn and Shorthorn airfields. However, these airfields are currently used for rotary wing aircraft and tactical unmanned aerial vehicles (TUAVs), and the upper-level airspace used for fixed wing aircraft would not be affected. Although land and airspace use is anticipated to increase, the intent of the land and airspace use at North Fort Hood would remain the same.

Groundwater, jurisdictional waters, surface water, and water quality are anticipated to be impacted due to increased construction activities and training at North Fort Hood. However, soil erosion management actions carried out in accordance with the Fort Hood Integrated Natural Resources Management Plan (INRMP) would help control the runoff of sedimentation into water bodies. Although hardening of surfaces through construction of buildings, roads, and parking areas will increase storm water flows, adherence to proper storm water management practices will reduce storm water runoff-related impacts. Storm water management practices include, but are not limited to, adherence to applicable regulations and codes, adherence to permit requirements (including obtaining a SWPPP), and low-impact development techniques. Additionally, use of BMPs such as silt fencing, sedimentation traps and stabilization of disturbed soil would minimize runoff into these water bodies, thus minimizing impacts to water quality. Jurisdictional waters do exist at North Fort Hood. Avoidance and minimization of impacts to jurisdictional waters should prevent these waters from being impacted. However, if jurisdictional waters are impacted, these impacts will be coordinated appropriately following the guidance set forth in Section 404 of the Clean Water Act, and appropriate mitigation projects would be implemented. Therefore, groundwater, jurisdictional waters, surface water, and water quality are not anticipated to be significantly impacted.

Cultural resources may be impacted due to construction activities at North Fort Hood. Although no archaeological sites are located within the North Fort Hood Cantonment Area south of Highway 36, some World War II and Cold War historic buildings are present in the area. Some of these buildings could be demolished in support of the Army's one for one demolition requirement, which mandates that for each building that is constructed on Fort Hood, an equal amount of square footage must be demolished. Because the projects are too far in the future to be associated yet with a demolition list, it is still unknown if any of the historic structures will be demolished. However, before any of the historic structures are demolished, proper coordination will be completed through the Fort Hood Cultural Resources office and the Texas State Historic Preservation Office. Therefore, cultural resources are not anticipated to be significantly impacted.

Hazardous and toxic substances are anticipated to be impacted as a result of both the increased training at North Fort Hood and increased infrastructure and construction. All hazardous materials brought on Fort Hood, or used on Fort Hood, must be accompanied by a Material Safety Data Sheet (MSDS). Further, The Hazardous Materials Management Program (HMMP) centrally manages all hazardous materials on post to reduce hazardous waste generation. All contractors working on post must comply with the HMMP and obtain approval for all hazardous materials brought on post. Fort Hood's Spill Prevention, Control and Countermeasure (SPCC) plan and the Installation Spill Contingency Plan address the prevention of unintentional pollutant discharges from the bulk

storage and handling of petroleum products and other hazardous materials. The HMMP, SPCC, Spill Contingency Plan, as well as all applicable local, state, and federal laws, must be followed at all times. Compliance with these rules and regulations is anticipated to minimize impacts to a level of insignificance.

Solid waste management is anticipated to be impacted due to construction practices at North Fort Hood. The increase in construction activities will cause an increase in materials entering the Fort Hood landfill. The landfill is a government-owned, contractor-operated Class I municipal solid waste permitted facility, operating under Permit Number 1866. Solid waste collection is accomplished under contract with a private refuse contractor. Fort Hood is actively engaged in technology advancements for solid waste processing to continue to exceed all DOD goals. Long-term, minimal impacts to the landfill would be expected as a result of increased construction at North Fort Hood. The life of the landfill and outstanding recycling program would easily accommodate any increase in solid waste generated by additional construction and training at North Fort Hood.

Utilities at North Fort Hood are anticipated to be impacted as a result of the increased infrastructure being constructed. Potable water to supply the North Fort Hood area is purchased from the City of Gatesville. The increased infrastructure is not anticipated to adversely impact the available water supply. North Fort Hood currently has its own wastewater treatment facility; however, discussions are underway to connect the installation's collection system to a treatment plant operated by the City of Gatesville. In either case, the capacity will support the proposed additional infrastructure. Electric power is currently supplied by two 138,000-volt transmission lines. The electric power supply would not be adversely impacted by the addition of infrastructure at North Fort Hood. The natural gas provider supplies a guaranteed maximum daily quantity of 550 MMBtu to North Fort Hood. This supply is ample for the proposed infrastructure. Overall, utilities are not anticipated to be adversely impacted as a result of the increased infrastructure and training at North Fort Hood.

Socioeconomics are anticipated to be impacted as a result of the increased construction activities at North Fort Hood. The North Fort Hood area's population would likely increase during construction timelines. The expenditures and employment increases would enhance sales volume, employment, and income of the surrounding area. These benefits would be short-term, as they would last only for the duration of construction. Socioeconomic impacts are anticipated to be beneficial and short-term.

Collectively, the cumulative impacts of the Proposed Action, paired with the increase in infrastructure and training planned for the North Fort Hood area, is not anticipated to have an adverse impact on the human or natural environment.

5.0 **CONCLUSION**

The construction of a new FOB will support training of Reserve Component units located at Fort Hood while mobilizing for OIF and OEF.

The conclusion of this Environmental Assessment is that the Proposed Action would not result in any significant environmental impacts. A Finding of No Significant Impact (FNSI) is recommended for the proposed action and an Environmental Impact Statement is not required. This Environmental Assessment and supporting documentation has been prepared in accordance with the National Environmental Policy Act of 1969, 42 USC 4321 *et seq.*, and as implemented by Executive Orders 11514 and 11991, Environmental Analysis of Army Actions, 32 CFR Part 651, and the Council on Environmental Quality.

6.0 **PREPARER**

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7.0 PERSONS AND AGENCIES CONTACTED

7.1 Individuals Contacted

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7.2 Agencies to be Contacted

In addition to the public, the following agencies will be invited to comment on this EA during the public comment period, as stated in section 1.3. Additionally, these agencies will receive a final copy of the EA at the completion of the public comment period if they so desire.

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8.0 ACRONYMS

ACUB	Army Compatible Use Buffer
ADNL	A-weighted Day/Night Level
AQCR	Air Quality Control Region
AR	Army Regulation
BCWCID	Bell County Water Control & Improvement District
BLORA	Belton Lake Outdoor Recreation Area
BMP	Best Management Practice
BTU	British Thermal Unit
CDNL	C-weighted Day/Night Level
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CHPPM	Center for Health, Promotion, and Preventative Medicine
COB	Civilians on Battlefield
CWA	Clean Water Act
dB	Decibels
DOD	Department of Defense
DPW	Directorate of Public Works
EA	Environmental Assessment
ECP	Entry Control Point
EO	Executive Order
ESA	Endangered Species Act
ESMP	Endangered Species Management Plan
FNSI	Finding of No Significant Impact
FOB	Forward Operating Base
HAAF	Hood Army Airfield
HUD	Housing and Urban Development
ICUZ	Installation Compatible Use Zone
INRMP	Integrated Natural Resource Management Plan
MCF	Thousand Cubic Feet
MSA	Metropolitan Statistical Area
MSDS	Material Safety Data Sheet
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
PCB	Polychlorinated Biphenyls
PCPI	Per Capita Personal Income
RCRA	Resource Conservation and Recovery Act
RGAAF	Robert Gray Army Airfield
ROI	Region of Influence
TCEQ	Texas Commission on Environmental Quality

TPDES	Texas Pollutant Discharge Elimination System
TPI	Total Personal Income
TSCA	Toxic Substances Control Act
USACE	United States Army Corps of Engineers
USCB	United States Census Bureau
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency

9.0 REFERENCES

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